

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006333**Date Inspected:** 16-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** Mike Gregson, Rob Walters**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Hinge K Pipe Beams**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Assembly 102A-4: 4/16/09

a111-4 Forging to a110-4 Base Plate

QA Inspector noticed the welding on the CJP (AWS D1.5 TC-U9a-S) a111-4 pipe forging to a110-4 base plate, for pipe beam assembly 102A-4 was complete and was sitting idle, pending 100% final ultrasonic weld inspection.

Hinge-K Pipe Beam Assembly 102A-3: 4/16/09

a111-3 Forging to a110-3 Base Plate

QA Inspector noticed the welding on the CJP (AWS D1.5 TC-U9a-S) a111-3 pipe forging to a110-3 base plate, for pipe beam assembly 102A-3 was complete and was sitting idle, pending 100% final ultrasonic weld inspection.

Hinge-K Pipe Beam Fuse Assembly 120A-3: 4/16/09

a124-12 Half Fuse to a124-10 Half Fuse

QA Inspector witnessed OIW production personell fitting completed half fuse sub-assembly a124-12 to a124-10, for assembly 120A-3.

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QA Inspector reviewed the applicable OIW approved drawings and noticed this weld joint was designated as a CJP AWS D1.5 (B-U3c-S).

QA Inspector measured a bevel angle of 30 degrees (included angle of 60 degrees) and no root opening, which appeared to be in compliance with this applicable joint configuration.

Hinge-K Pipe Beam Assembly 102A-2: 4/16/09

a111-2 Forging to a110-2 Base Plate

QA Inspector noticed the submerged arc welding (SAW) on CJP (AWS D1.5 TC-U9a-S) pipe beam base plate, (piece mark identified as a110-2) to pipe forging, (piece mark identified as a111-2), was complete and this assembly 102A-2 was sitting idle.

QA Inspector noticed that QC Inspector Rob Walters, had performed visual testing on this completed weld and found no rejectable indications, per AWS D1.5, visual testing procedures, as noted next to the weld joint on this date.

QA Inspector spoke with QC Inspector Mike Gregson and Mr. Gregson explained that preliminary ultrasonic weld testing would be performed by qualified OIW QC Inspectors and a final ultrasonic weld inspection would be performed after a 72 hour time cooling period, which is in accordance with AWS D1.5 Sect. 12.16.4, Cooling Times Prior to Inspection.

Hinge-K Pipe Beam Fuse Assembly 120A-2: 4/16/09

a124-3 Half Fuse to a124-11 Half Fuse

QA Inspector randomly witnessed welder #S53, Mr. Jerry Shepherd, perform submerged arc welding (SAW) on CJP (AWS D1.5 B-U3c-S), half fuse pipe assembly, (piece mark identified as a124-3), to half fuse pipe assembly, (piece mark identified as a124-11), in the flat position (1G).

QA Inspector noticed Mr. Jerry Shepherd was in-process of the final two welding cover passes and would be complete with the submerged arc welding of this fuse assembly 120A-2, by end of day shift.

QA Inspector noticed Mr. Mike Gregson and QC Inspector Rob Walters were present and monitoring in-process welding parameters (amps/volts) and pre-heat temperatures, verifying Mr. Jerry Shepherd was in compliance with the applicable welding procedure specification (WPS 4020).

QA Inspector verified Mr. Jerry Shepherd was currently qualified for this welding process/position and performed a random pre-heat check and recorded temperatures of approximately 350 degrees Fahrenheit, which is in compliance with the OIW welding procedure specification (WPS 4020).

Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of personnel at Oregon Iron Works, Inc. and witnessed 6 OIW production personell and 2 QC.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural

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Materials for your project.

Inspected By: Vance,Sean

Quality Assurance Inspector

Reviewed By: Adame,Joe

QA Reviewer